B

June 5, 2001

Exhibit B

Overview of SigmaOne Communications Carrier Audited Trial Results and Technology

TABLE OF CONTENTS

TABLE OF FIGURES

1 OVERVIEW OF SIGMAONE COMMUNICATIONS

SigmaOne was established in November of 1997 by KL LLC, an investment group led by its management founders, Dennis Kahan and Mark Licht and Tadiran Ltd., a major Israeli military and electronics house. The company's mission is to develop and commercialize world-class location technologies and systems designed to deliver precise E911 location for wireless carriers, consumers and public safety agencies. Since it's inception SigmaOne has developed and tested three generations of wireless location systems including the Sigma2000 AMPS system deployed initially by SigmaOne in it's Los-Angeles test-bed in 1998, and two subsequent generations of the Sigma5000 AMPS/TDMA IS136 digital system which have undergone extensive audited trials in the United States and in Israel.

2 STRENGTHS IN THE FIELD OF WIRELESS LOCATION TECHNOLOGIES

The founding management team and engineering organization, recruited over the past 3 years, bring over one hundred years of combined experience in the development and deployment of land-based wireless location systems and services. The SigmaOne engineering team has been involved in the development of dozens of commercial and military location systems over the past 25 years including Teletrac, the world's first commercial land based TDOA location system as well as classified military location systems developed in both the United States and Israel.

To date, SigmaOne has achieved a number of critical engineering milestones, including: 1) Completion of the development and commercialization of its hybrid TDOA-AOA location infrastructure which has been designed to simultaneously support both Analog and Digital air interfaces, achieve high capacity, meet the FCC's required accuracy (100 meters) and provide an instantaneous location capability to a carrier's entire subscriber base without requiring any change to the handset, and; 2) completion of three successful carrier audited technical field trials with major AMPS/TDMA carriers in the United States (Carriers identity withheld due to NDA) as well as on-going testing with CellCom, the largest TDMA wireless carrier in Israel.

3 BRIEF DESCRIPTION OF SIGMAONE'S SIGMA5000 LOCATION SYSTEM

SigmaOne's Sigma5000 location system is a hybrid solution that combines both Time Difference Of Arrival (TDOA) and Angle of Arrival (AOA) technologies. Based upon extensive field testing, simulations and years of experience with AOA and TDOA, SigmaOne has concluded that for narrow band air interfaces - specifically for AMPS and TDMA - a combination of these technologies will be required to meet both the FCC's stringent E911 location requirements and the demands of wireless carriers for commercial location based services.

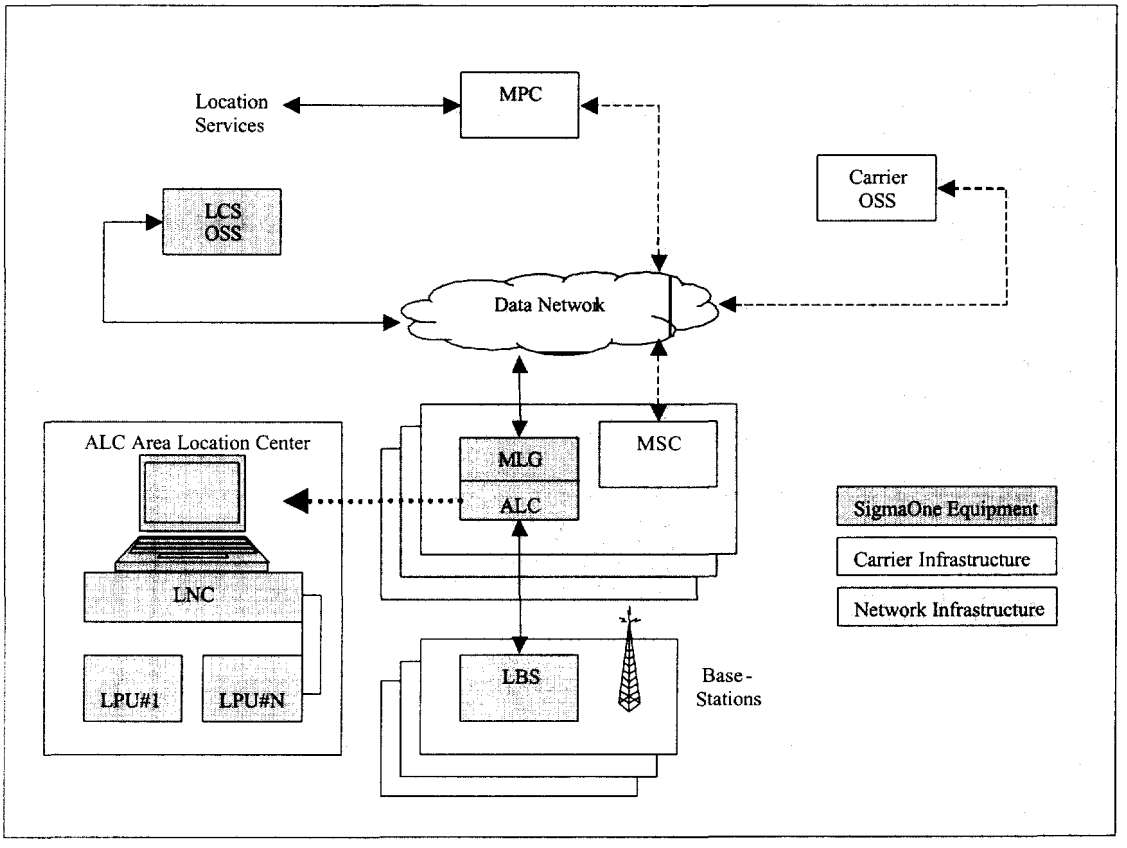

Figure 1 - SigmaOne's Network Based Location System – Block Diagram

The Sigma5000 system is a fully standardized location system addressing the functional and performance requirements from the Position Determination Entity (PDE) defined in J-STD-036. The Sigma5000 system is designed to operate as a completely independent network overlay, semi-dependent or fully integrated system to support multiple architectural configurations and satisfy a wide variety of location system implementations. As an independent, network-based location system, the Sigma5000 system is capable of determining location by independently monitoring call initiation, voice/traffic channel assignment, handoffs and other control channel activity. An additional benefit of the independent overlay architecture is that this architecture is not dependent on the MPC to trigger the location process and to provide channeling and time slot data to the location system (defined in J-STD-036 as MOBINFO). In many cases by monitoring the control channels for "911" calls, the Sigma5000 will independently trigger the location process, compute the location data and cache the data at the Mobile Location Gateway (MLG) prior to receiving a request from the MPC. This enables the MPC to route the call to the appropriate PSAP, based on precise location rather than cell/sector information.

The major elements of the Sigma5000 System architecture include:

- The Location Base Station (LBS)
- The Area Location Center (ALC)
- The Mobile Location Gateway (MLG)
- The Operation & Support System (OSS)

3.1 The Location Base Station (LBS)

The LBS is typically co-located within the carrier's Cell Site. The LBS consists primarily of multiple receivers backed by sophisticated digital signal processing. It receives the same over-the-air signals transmitted by the handset to a cell site and processes them to extract monitoring information and location measurements.

The LBS supports multiple configurations. The configurations supported include:

- TDOA only mode
- TDOA/AOA combination
- Monitoring and Non-Monitoring configurations (location determination process self triggered by monitoring control messages from air interface or process triggered through request message from J-STD-036 MPC)
- Omni Directional or Sectorized cell-site configurations

3.1.1 Antennas

The use of additional antennas for location depends heavily on the specific cell site configuration. To perform TDOA measurements, SigmaOne typically utilizes the existing cellular antennas. In cases in which TDOA/AOA systems are deployed, SigmaOne adds an antenna array that enables the collection of the AOA measurements. The specifications developed by SigmaOne for these AOA antennas recognize the inherent issues and difficulties facing the wireless carrier in the deployment of additional antennas at their cell-sites. The antennas were designed to be minimal in size and weight and unobtrusive (35"W x 9.5" H x 8 Kg – Far smaller and lighter than the antennas quoted by AT&T in their filings) minimizing mechanical loading on the cell-site antenna structure and potential zoning concerns.

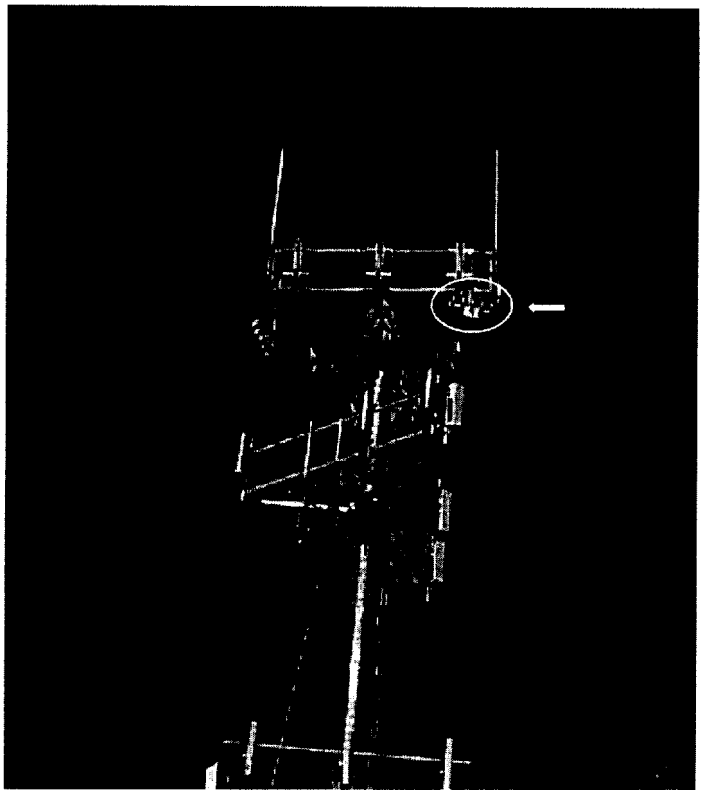

Figure 2 - SigmaOne's antenna array (encircled) installed on a carrier monopole site

3.2 The Area Location Center (ALC)

The ALC is typically co-located within the carrier's MSC and supports multiple LBS's. In addition to controlling the operation of the LBS's, the ALC receives LBS location measurements, computes the handset locations and reports the information through the MLG to the Wireless Carrier's Mobile Positioning Center (MPC).

3.3 Mobile Location Gateway (MLG)

The MLG performs the following basic functions:

- Receives position-query messages (and other relevant) messaging from multiple MPC's or Location Service platforms and routes them to the correct ALC.

- Performs caching of these position-query and other messages. This capability is used as a synchronizing buffer between requests and reports and also in cases in which the MPC/ location-service platform is not capable of accepting pushed messaging.
- Receives position-update messages (and other relevant messaging) from multiple ALC's and routes them to the correct MPC.

The MLG is a software entity that can reside as part of one ALC platform (embedded as part of the ALC processor suite), or within a stand-alone platform for customized integration with existing MPC platforms.

3.4 Operation Support System (OSS)

The OSS is a collection of support and subsystems that provide the day-to-day control, monitoring and operation of the Sigma5000 location system. The OSS is capable of Fault Management, Configuration Management and Performance Management from a Network Management Center (NMC). Operator personnel working in the NMC are able to monitor, operate, maintain and configure all of the Sigma5000 subsystems, including the LBS, ALC and MLG.

Alarms and alerts from all network elements are displayed on a single configurable window, enabling unified central alarm management of the Sigma5000. Network performance measurements and traffic statistics are collected from all Network Elements and stored in a central database for both short and long term analysis and trends survey. Through the OSS, operators are able to customize and develop traffic and performance reports.

4 SIGMAONE'S AMPS/TDMA FIELD TRIALS - RESULTS FROM CARRIER AUDITED TESTS (CARRIER IDENTITY WITHHELD)

4.1 Test Set-Up and Objectives of Carrier Audited Field Trials

The primary objective of the trials was to evaluate the performance and functionality of the Sigma5000 system in a variety of operational scenarios including typical Suburban, Urban and Rural environments. The wireless carrier performed these field tests in order to validate the achievable performance of the Sigma5000 AMPS/TDMA (IS-136) location system. The system's performance was evaluated and verified in the three environments under a wide range of call scenarios, for both AMPS and TDMA (IS-136). SigmaOne and the wireless carrier teams jointly determined the scenarios immediately prior to each test stage.

The test setup enabled the accurate comparison of the cellular handset location reported by the Sigma5000 system to the location reported by a Differential GPS (DGPS) receiver. Throughout the test, location and monitoring data from both the DGPS and Sigma5000 system was recorded on file and, in parallel, visually displayed in real time on an electronic map as a set of two dots. A green dot on the map represented the location reported by the SigmaOne Location System and a red dot represented the location as reported by the DGPS. A window including accuracy errors and call setup parameters was also displayed in real time as an overlay to the electronic map. The carrier was witness to the system performance both in real time and following the processing of the test data and submittal of test report.

Test calls using a standard handset were placed to a set of 25 consecutive pre-assigned telephone numbers, using the "Ericsson TEMS automatic call generator". The call generator automatically placed 25, 15-second calls for each scenario tested. Location data was reported after 4 seconds from call initiation and each call was then tracked for the remaining 11 seconds with location updates provided every 2 seconds thereafter.

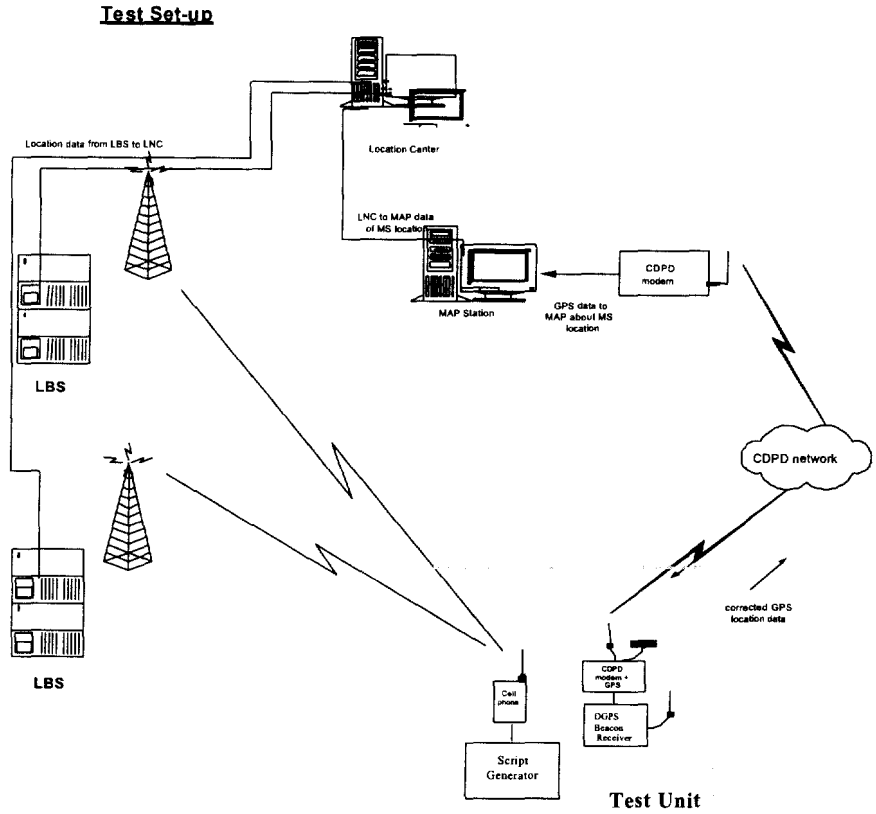

Figure 3 Test Set-Up for Functionality and Accuracy Tests

4.2 Summary of Audited Field Trial Results

In all three environments tested, a total of 2,713 test calls were placed, with roughly half of these calls placed in AMPS and the other half in TDMA IS-136. The three trials (suburban, urban and rural) were completed in March, July and December of 2000 respectively. In all of the tests, at least one representative of the carrier was present at the ALC site, monitoring data collection, system performance and test data collected, while another carrier representative closely monitored the activities of the call generator and test set operator. For each of the areas tested, call scenarios included mobile scenarios (calls placed when the handset was located inside vehicle while driving), stationary scenarios (car parked with handset located inside vehicle, or test set carried by person on foot) and indoor scenarios (mobile and test set operated by handset operator inside building).

Approximately 30% of the calls placed during the Suburban trial, and 50% of the calls placed during the urban trial were placed deep inside buildings ranging from 1 to 6 story buildings in the Suburban environment, to high-rise urban canyon office buildings in the urban environment.

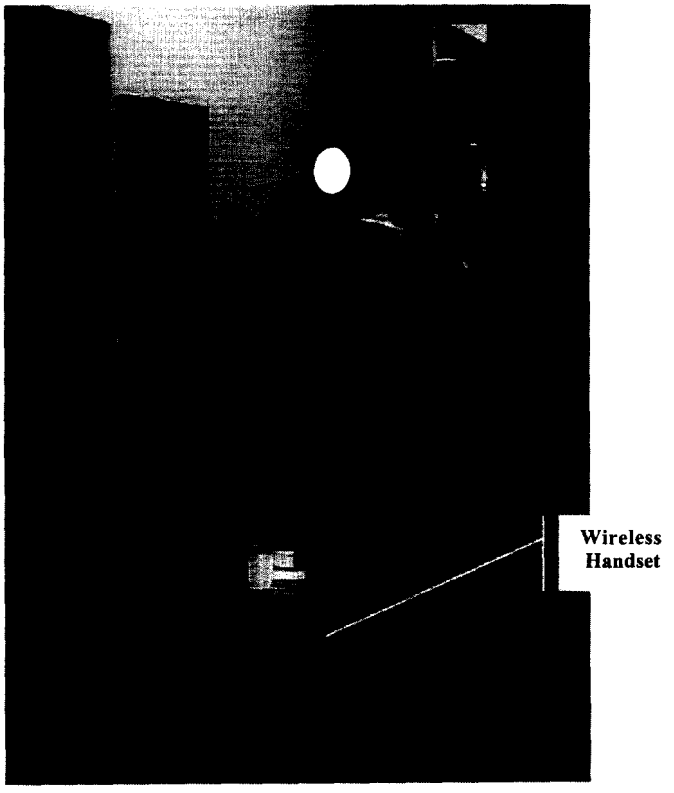

Figure 4 - In-Building - Call Generator and handset located on the floor by elevator shaft

Figure 5 - In Building tests - Shopping mall ground floor

The test results shown in Table 1 and Table 2 clearly demonstrate that even with beta system hardware and initial versions of the location algorithms used at the time of the test (March – October 2000) the Sigma5000 system met the 67% FCC mandate in all suburban environments and fully met the 95% requirement throughout the compiled environments. Most importantly, even when subjected to rigorous test environments that included urban canyons, high-rise office buildings, hangars, underpasses, bridges, and parking garages, the SigmaOne beta system attained a compiled accuracy across all environments of 110m - 67%. This represents accuracy two times better than AT&T has claimed for its still unproven MNLS solution. Furthermore, the Sigma5000 accurately and consistently provided location information for calls placed in the AMPS mode (just under 50% of the trials). Results in AMPS were similar to the accuracy results obtained in TDMA (IS-136).

Table 1 - Audited trials – Summary results 67%

	Suburban	Urban Canyon	Rural	Compiled Result[1]
AMPS - 67%	95 m	125 m	247 m	114.7 m
TDMA - 67%	85 m	140 m	255 m	110 m

Table 2 - Audited trials - Summary results 95%

	SUBURBAN	URBAN CANYON	RURAL	COMPILED RESULT[2]
AMPS - 95%	200 M	321 M	556 M	254 M
TDMA - 95%	175 M	314 M	582 M	236 M

4.2.1 Sigma5000 Algorithm and Hardware Improvements as of May, 2001

As a company dedicated to developing world-class location technology, SigmaOne Communications is continuously striving to improve the performance of its location systems. In fact, the hardware utilized for the tests described above has already undergone a series of modifications resulting in improved sensitivity, improved dynamic range and a reduction in the receiver noise figure. These enhancements, together with new location algorithms, will result in further system level improvements in the commercial version of the Sigma5000 system.

[1] Based on the assumption – 75% of calls suburban, 15% urban, 10% rural
[2] Based on the assumption – 75% of calls suburban, 15% urban, 10% rural

4.2.2 Rural Field Trial Results Using Improved Algorithms

In order to illustrate the potential impact of these algorithm improvements SigmaOne has rerun the rural field trial tests, utilizing a new system algorithm, with the same raw data measurements received from each location base station during the December trial. With these improved algorithms, the Sigma5000 system was able to deliver a rural accuracy of 194 m – 67% and 380 m – 95% in AMPS, and 145 m – 67% and 434 m – 95% in TDMA, a statistical improvement of more than 20% over the December field trial. (Note that these improvements do not reflect improvements due to modifications to the hardware).

Table 3 and Table 4 below summarize the accuracy improvements achieved for the rural data when utilizing the improved algorithm. With the algorithm changes applied solely to the rural data, SigmaOne can demonstrate a compiled one-sigma accuracy of 99 meters[3] (67%) in TDMA and 105 meters (67%) in AMPS.

Table 3 – Summary results 67% - With Improved algorithms used on Rural Data

	Rural beta algorithm	Rural enhanced algorithm
AMPS – 67%	247 m	194 m
TDMA – 67%	255 m	145 m

Table 4 – Summary results 95% - With improved algorithms used on Rural Data

	Rural beta algorithm	Rural enhanced algorithm
AMPS – 95%	556 m	380 m
TDMA – 95%	582 m	434 m

[3] Based on the assumption – 75% of calls suburban, 15% urban, 10% rural

4.3 Suburban Tests

The suburban environment for the trials included flat and rolling hill terrain. The Suburban tests consisted of 30 different test scenarios, including 20 outdoor and 10 indoor. For each scenario 25 calls were placed in the AMPS mode and 25 calls were placed in the TDMA mode. In total, 1,451 calls were placed. The tested scenarios included:

- Calls placed outdoors, in various locations throughout the test area
- Calls placed within building structures, throughout the test area.
- Calls for each scenario were placed both in AMPS and TDMA

Figure 6 depicts the distribution of location error obtained for all suburban tests performed in the analog AMPS mode. Figure 7 shows the equivalent results obtained during TDMA (IS-136) testing.

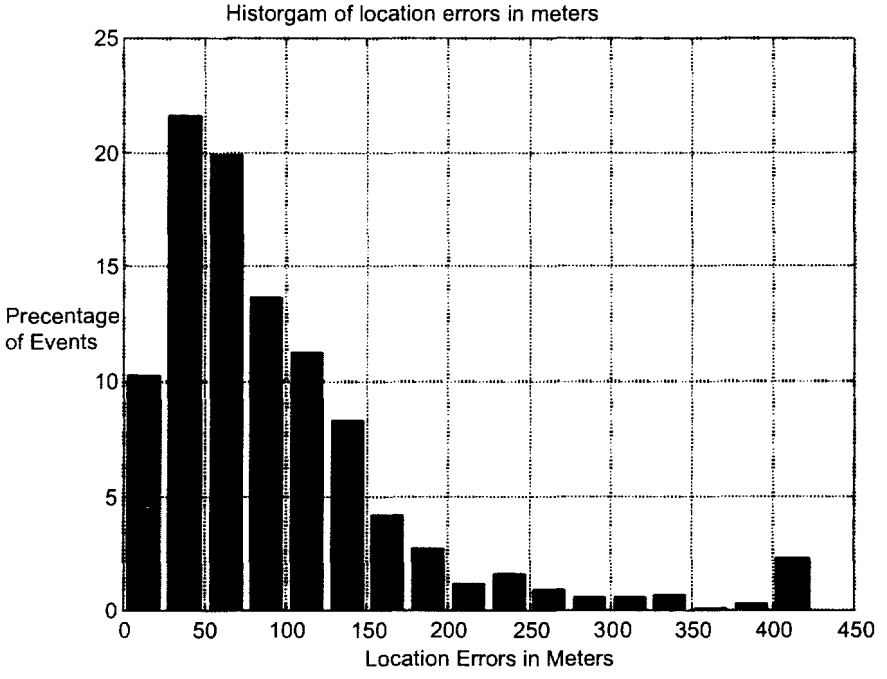

Figure 6 - Location Error Histogram – AMPS

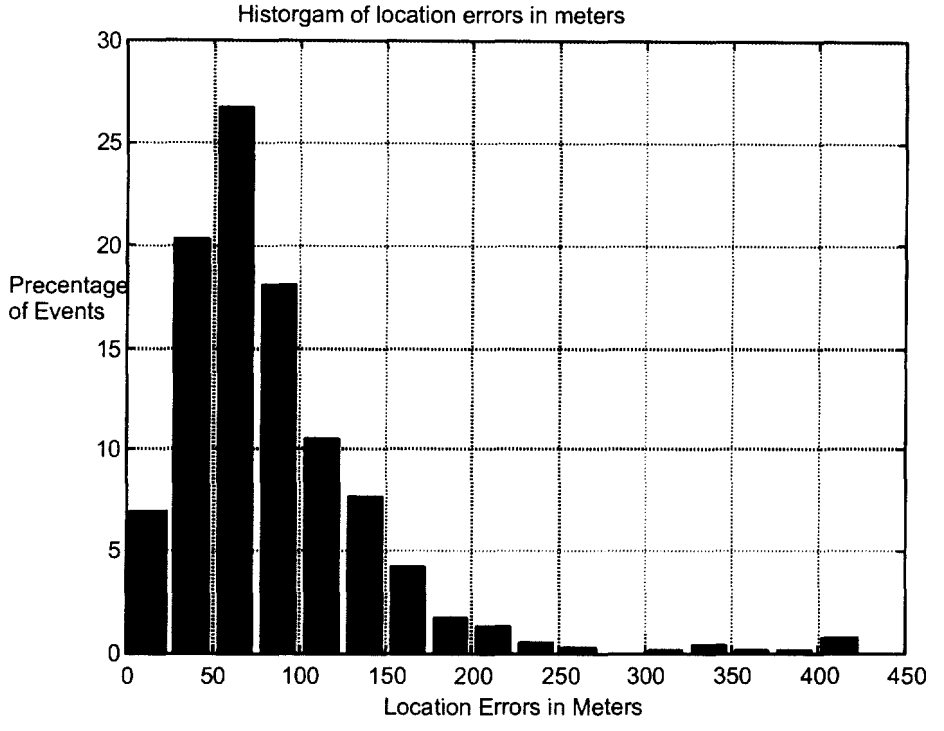

Figure 7 - Location Error Histogram – TDMA

4.4 Urban Tests

Urban Canyon environments are extremely challenging for all location technologies whether network or handset based. In this environment AOA and TDOA measurements are most severely affected by multipath. The results obtained from the field trials performed in the downtown/urban canyon areas achieved overall accuracies in the order of 130 meters (67%) and 315 meters (95%).

The SigmaOne and carrier teams also conducted 15 extremely challenging in building urban test scenarios. These in-building tests included: 1) calls placed from within high rise buildings at different floor levels; 2) central location within concrete parking structures; 3) multi-story shopping malls; 4) locations below street level under a 4 lane bridge, and; 5) indoor loading docks of a convention center. Location accuracy achieved from these tests was similar to the performance obtained outdoors.

Performance results from each test scenario were recorded for calls placed in AMPS and calls placed in TDMA. Figure 8 depicts the distribution of location error obtained for all urban tests performed in the analog AMPS mode. Figure 9 shows the equivalent results obtained during TDMA (IS-136) testing. Figures 11 through 13 illustrate the urban test environment.

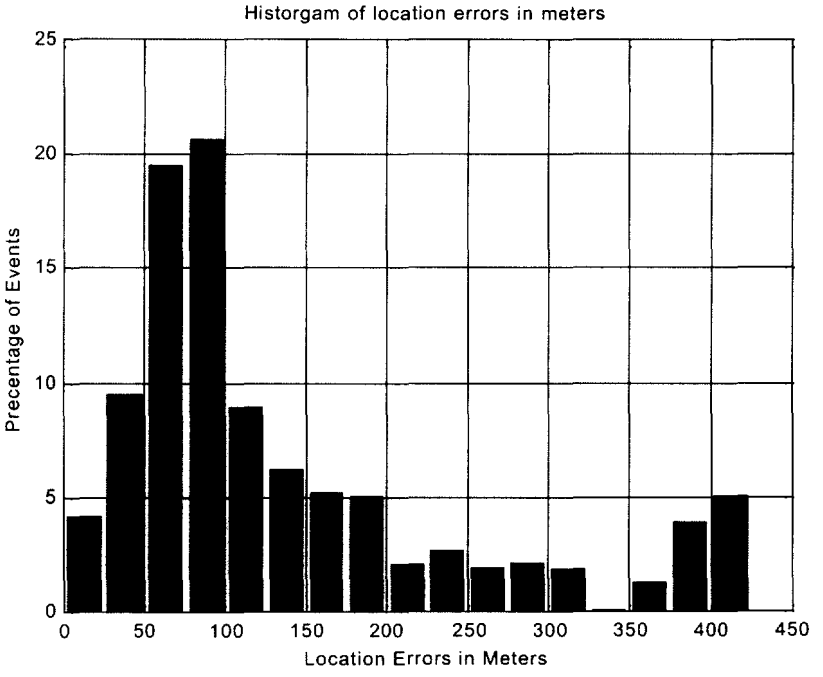

Figure 8 - Location Error Distribution Histogram – AMPS

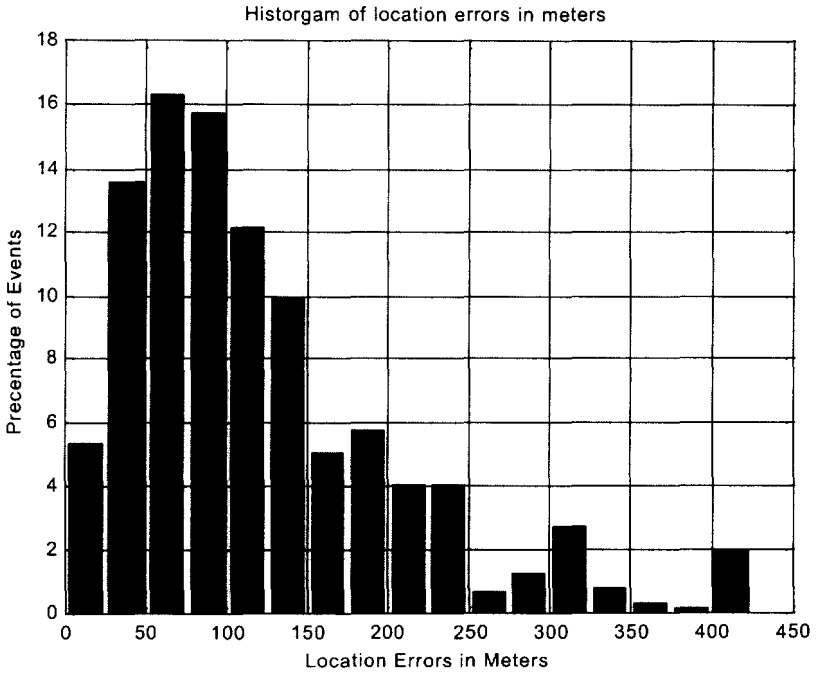

Figure 9 - Location Error Distribution Histogram - TDMA

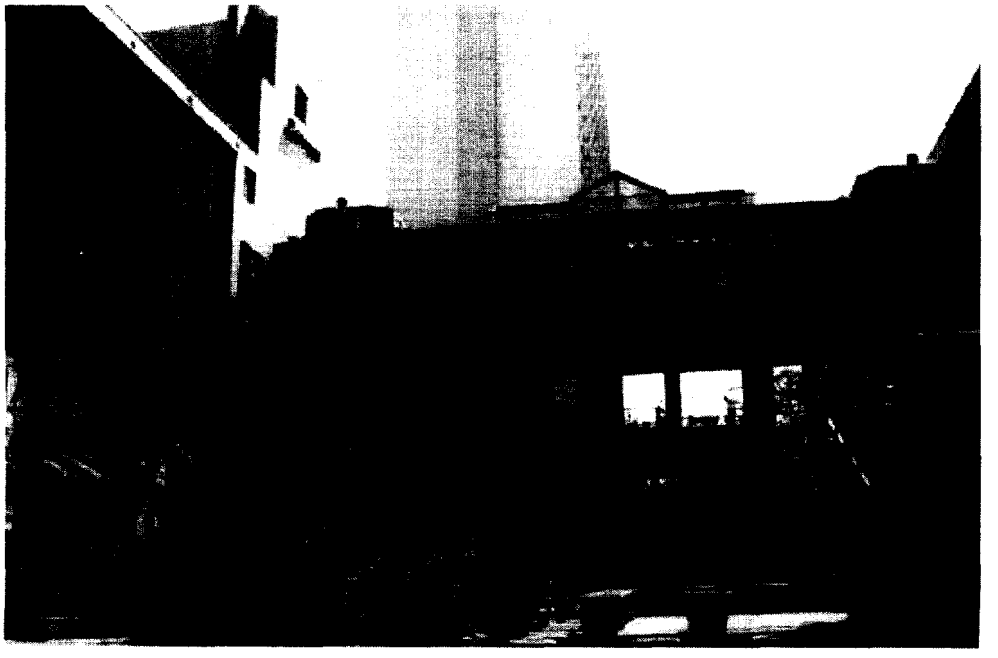

Figure 10 - Outdoor Urban Stationary Test

Figure 11 - Inside loading dock structure - Convention Center

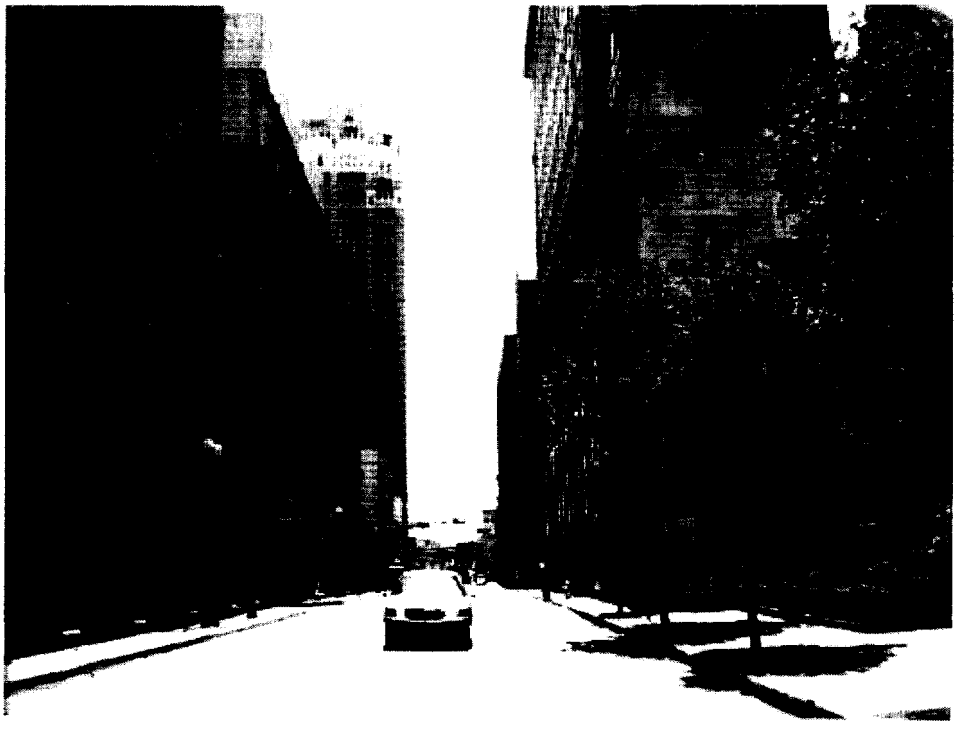

Figure 12 - Urban Canyons - Mobile test

4.5 Rural Tests

These trials were conducted in challenging rural environments including steep hills, small access roads, lakes and foliage covering an area larger than 200 square miles.

In TDMA, the accuracy achieved was 255 meters and for AMPS calls accuracy achieved was 247 meters. This level of accuracy was achieved using the SigmaOne Sigma5000 beta system. During the initial preparation phase for the rural trials, SigmaOne uncovered a design flaw in the front-end receiver of the location system. This flaw limited the Signal to Noise threshold in which the system was able to perform location measurements. In other words limiting the ability of the location system to process very weak signals (weak signals are typical of rural settings). This problem has already been addressed in the commercial hardware implementation of the Sigma5000 unit and will therefore significantly improve location performance in rural settings (See paragraph 4.2.2 above).

4.5.1 Rural Trial Data

Figure 13 depicts the distribution of location error obtained for all rural tests performed in the analog AMPS mode. Figure 14 shows the equivalent results obtained during TDMA (IS-136) testing.

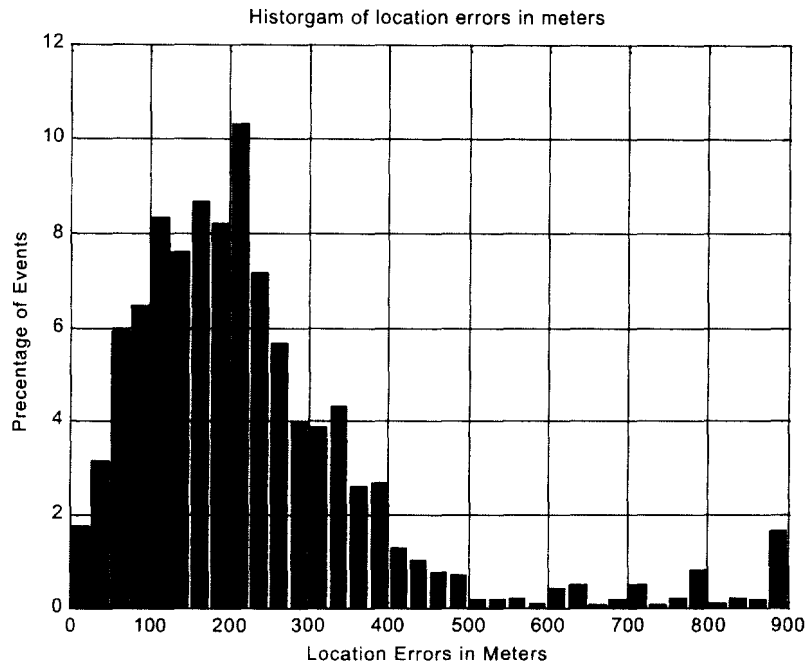

Figure 13 – Rural tests = Location Error Distribution Histogram – AMPS

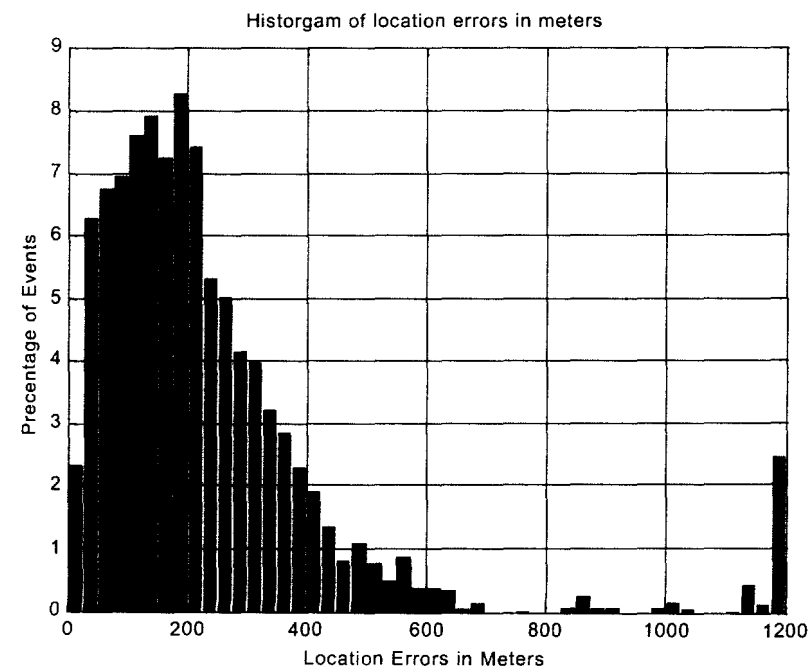

Figure 14 – Rural Tests - Location Error Distribution Histogram – TDMA

4.5.2 Location Performance Using Only Two Sites

One of the important features of SigmaOne's AOA/TDOA system is its ability to provide location data in areas in which other location systems typically fail. These include scenarios along interstate highways, during which only 2 Location Base Stations will be able to receive the transmissions from the wireless handset. One of the objectives of the rural trials was to verify SigmaOne's ability to provide useful location data in these scenarios.

SigmaOne and Carrier teams conducted 6 tests for each air interface along a typical rural interstate highway. For these tests only two Location Base Stations, located along the highway, were used to determine the call's location. The accuracy achieved in this interstate scenario was 191 meters (67%) for TDMA calls and 216 meters (67%) for AMPS calls. Overall two-site accuracy was 207 meters (67%).